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United States
Department of
Agriculture

Natural
Resources
Conservation
Service

Idaho

Basin Outlook Report

May 1, 1995



Basin Outlook Reports and Federal - State - Private Cooperative Snow Surveys

For more water supply and resource management information, contact:

Your local Natural Resources Conservation Service Office

or

Natural Resources Conservation Service

Snow Surveys

3244 Elder Street, Room 124

Boise, ID 83705-4711

(208) 334-1614

How forecasts are made

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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IDAHO WATER SUPPLY OUTLOOK REPORT

MAY 1, 1995

SUMMARY

Idaho's central mountains experienced cool, wet weather during April, and abundant water supplies are now virtually assured for 1995. This water year started off with concerns about possible water shortages, but now the concern is over potential flooding in some areas. Snowpack conditions and water supply prospects are not quite as optimistic along the northern and southern edges of the state, but no significant shortages are expected in these areas.

SNOWPACK

Cool weather has delayed snowmelt in most areas of the state. In the higher elevations, snowfall continued to boost the mountain snowpack during April. Only the lower elevation sites reported a net loss in snowpack over the month. Currently, snowpacks range from 70-90% of average in northern Idaho, 110-160% in the central mountains, and near average along the southern edge of the state and in the upper Snake basin in Wyoming. Delayed snowmelt increases the possibility of high streamflows; the likelihood of sustained warm temperatures and resulting high melt rates is much greater as we move into late May and June. Potential for flooding from heavy snowpacks exists from the west-central mountains to the Henrys Fork basin. May's precipitation and air temperatures will determine how high and how quickly the rivers will rise.

PRECIPITATION

Idaho's central mountains received well above normal precipitation during April. At the higher elevations most of this precipitation was in the form of snow, adding to the already heavy snowpacks. Northern Idaho was the only area that received below normal precipitation in April. Elsewhere, April precipitation ranged from near normal in the Clearwater and Bear river basins to 175% of average in the central mountains. Precipitation totals for the water year are average or above average for all basins in the state, a major change from last year at this time.

RESERVOIRS

Reservoir storage improved across the central part of the state last month. Flood control releases are being made in the Boise and Payette basins to make room for the anticipated high runoff. Currently, the Payette system is 71% of capacity, Boise system is 65%, and Snake system is 73%. The above average snowpack and runoff this year will allow all major reservoirs in the Payette, Boise, Wood, Lost and Snake River basins to fill and help provide carryover storage for next year. The timing of the runoff this year will determine how rapidly and when the reservoirs will fill. In southern Idaho, reservoir storage levels remain low. Oakley, Salmon Falls and Bear Lake are each reporting about 30% of capacity. Northern Idaho reservoirs and lakes are still reporting near to above average storage due to the early runoff in February and March.

Note: NRCS reports reservoir information in terms of usable volumes, which includes both active, inactive, and in some cases dead storage. Other operators may report reservoir contents in different terms. For additional information, see the reservoir definitions in the back of this report.

STREAMFLOW

Streamflow volumes for the month of April were variable around the state. Northern Idaho and extreme southern Idaho had well below normal flows while the Salmon River and the upper Snake basins were just slightly below normal. Streamflow throughout the central part of the state, including the Henrys Fork, was above normal for the month thanks to the abundant precipitation across this region. Streamflow forecasts for the May-July period are also variable due to the diverse snowpack conditions. Basins north of the Salmon River and streams south of the Snake from Oakley to the Owyhee are projected between 70 and 90% of average. The Salmon, Boise, Payette, Weiser, and upper Snake basins should have abundant water supplies - forecasts are for 110-130% of average. Finally, the Wood, Lost and Henrys Fork basins could see extreme high water this year if sudden hot weather sets in for more than a few days in a row. Forecasts in these areas call for 150% of average for the Henrys Fork, 139% for the Big Lost River, 153% for the inflow to Magic Reservoir, and 145% for the Big Wood River at Hailey. Landowners and others interested in flood prone areas should keep in touch with the National Weather Service for the latest information about flood watches or flood warnings.

RECREATION OUTLOOK

The snowpack continued to build in Idaho's central mountains during April, promising high streamflows and full reservoirs for the summer recreation season. The Salmon River basin reports a snowpack of 118% of average, with streamflow forecasts calling for 108% of average runoff this season. For river runners, this means the potential for high peaks (possibly as high as 8 feet on the Middle Fork) and good flows later into the summer. The Middle Fork should remain above 2 feet until mid-August. In the Payette basin excellent reservoir storage and above average runoff forecasts promise plenty of water for everyone. The Jarbidge and Bruneau Rivers should yield moderate rafting flows during May and early June. The Owyhee will probably continue a slow recession during May to low flow conditions in June. Northern Idaho streams should see a good runoff season during May and June. Most major reservoirs are expected to fill this year, promising a long recreation season for water skiers, sailors, and power boaters. Backcountry mountain travelers can expect snow to persist in the high country longer than normal this spring; some favorite 4WD trails may not be accessible until mid July. Backcountry users should contact the local U.S. Forest Service Ranger Districts for specific access information. River and reservoir users, however, will remember this as one of the best recreation years in recent memory.

IDAHO SURFACE WATER SUPPLY INDEX

The Surface Water Supply Index (SWSI) is a predictive indicator of surface water availability within a watershed for the spring and summer water use season. The index is calculated by combining pre-runoff reservoir storage (carryover) with forecasts of spring and summer streamflow. SWSI values are scaled from +4.1 (abundant supply) to -4.1 (extremely dry), with a value of zero indicating a median water supply as compared to historical occurrences.

SWSI values are published January through May, and provide a more comprehensive outlook of water availability than either streamflow forecasts or reservoir storage figures alone. The SWSI index allows comparison of water availability between basins for drought or flood severity analysis. Threshold SWSI values have been established for most basins to indicate the potential for agricultural water shortages.

The following agencies and cooperators provide assistance in the preparation of the Surface Water Supply Index for Idaho:

US Department of Agriculture, Natural Resources Conservation Service
US Department of Interior, Bureau of Reclamation
US Department of Commerce, National Weather Service
US Army Corps of Engineers
Idaho Department of Water Resources
Idaho Water Users Association
PacifiCorp

IDAHO SURFACE WATER SUPPLY INDEX (SWSI) As of May 1, 1995

Basin or Region	SWSI	Most Recent Year With Similar SWSI Value	Agricultural Water Supply Shortages May Occur When SWSI Is Less Than:
Panhandle	-2.5	1989	NA
Clearwater	-0.2	1993	NA
Salmon	1.3	1993	NA
Weiser	-0.3	1986	NA
Payette	2.5	1984	NA
Boise	1.1	1980	-2.6
Big Wood	2.0	1986	-1.4
Little Wood	2.8	1984	-2.1
Big Lost	2.3	1986	-0.8
Little Lost	1.6	1993	0.0
Henry's Fork	2.1	1986	-3.3
Snake (American Falls)	2.1	1980	-2.0
Oakley	-1.0	1987	0.0
Salmon Falls	0.0	1977	0.0
Bruneau	-1.1	1985	NA
Owyhee	-0.3	1993	NA
Bear River	-3.8	1994	-3.8

NA - Not Applicable

SWSI Scale


1.5 to 4.1 Above Normal Supply
-1.5 to 1.5 Near Normal Supply
-3.0 to -1.5 Below Normal Supply
-4.1 to -3.0 Very Short Supply


IDAHO MOUNTAIN SNOWPACK


MAY 1, 1995


0 25 50 75 100 MI


LEGEND

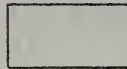
 Much Above Average
More Than 130 percent

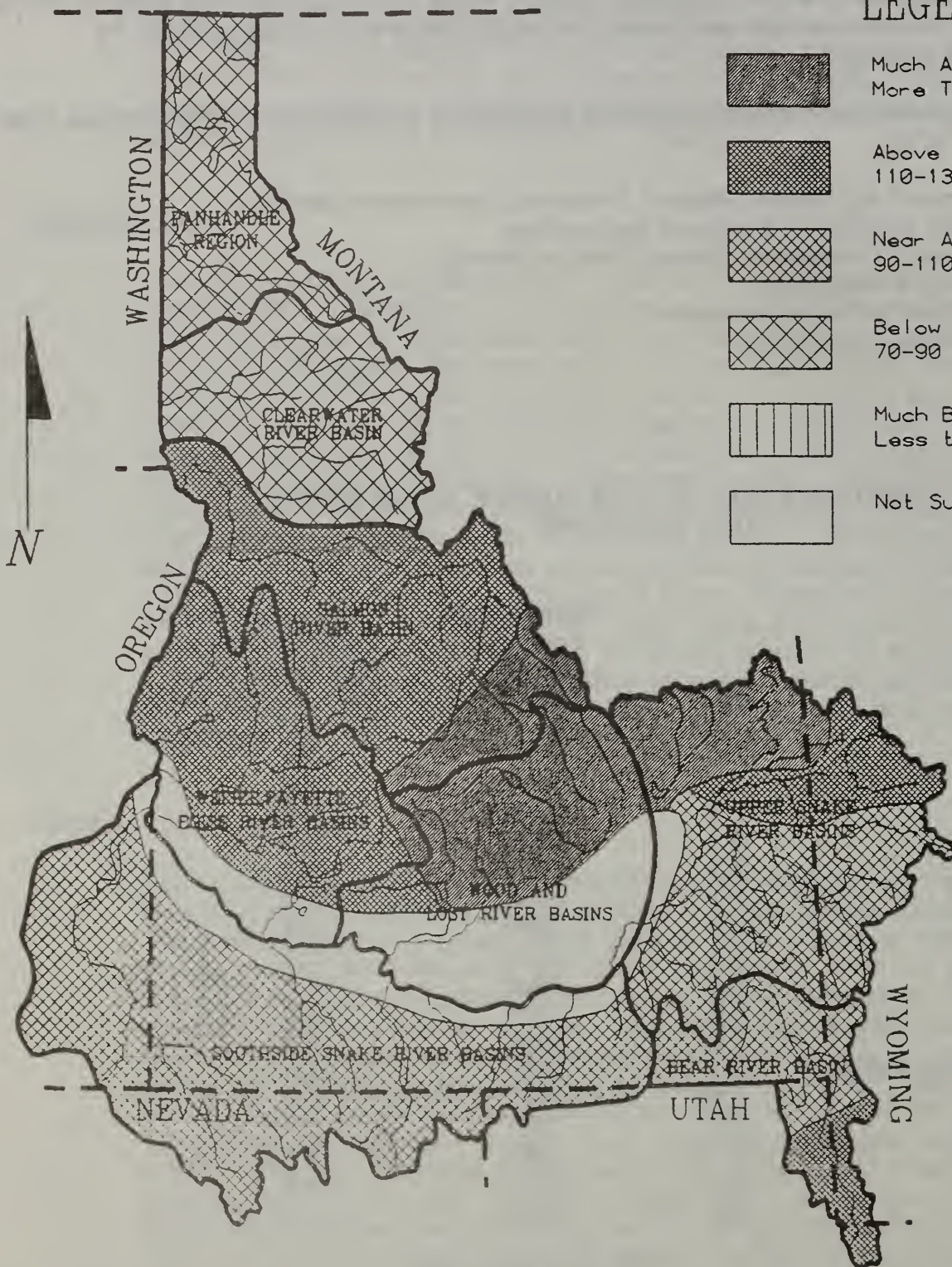
 Above Average
110-130 percent

 Near Average
90-110 percent

 Below Average
70-90 percent

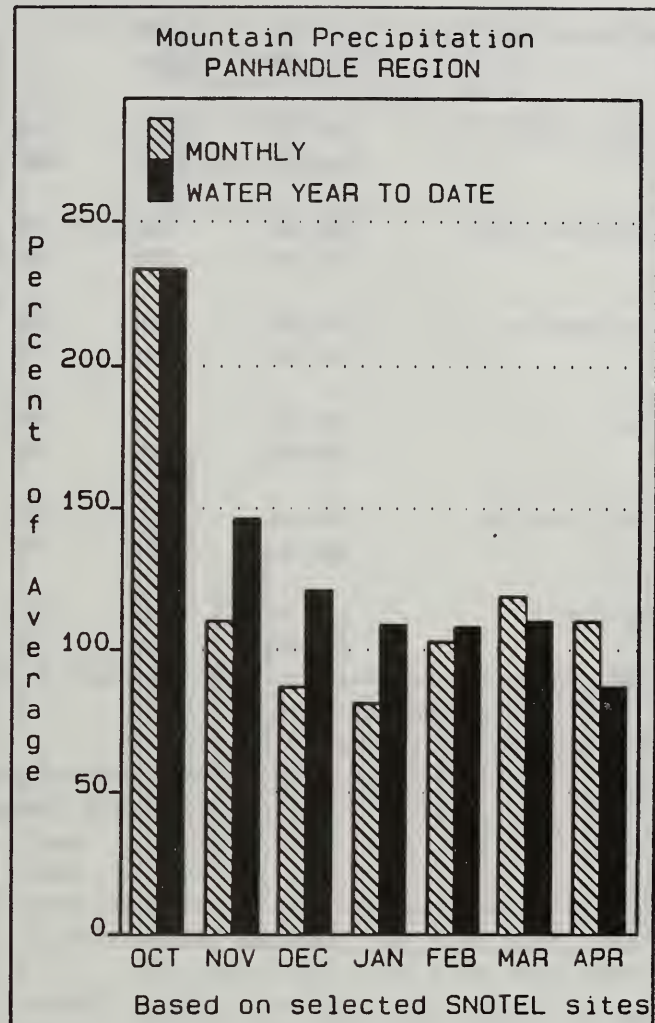
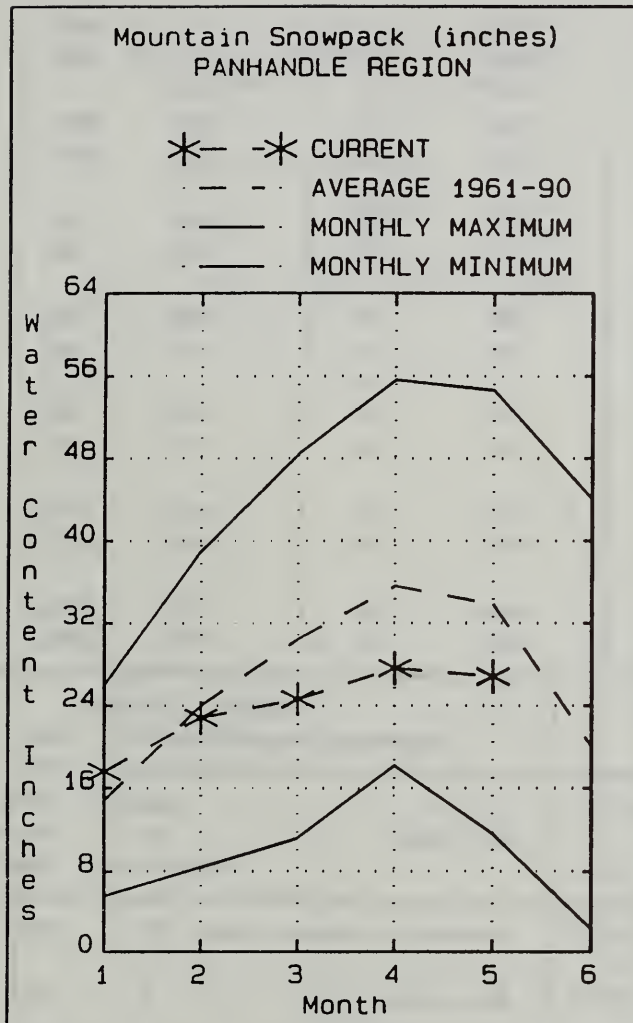
 Much Below Average
Less than 70 percent

 Not Surveyed



PANHANDLE REGION BASIN

MAY 1, 1995



WATER SUPPLY OUTLOOK

The Idaho Panhandle was the driest region in the state during April, receiving only 80% of average precipitation during the month. Mountain precipitation is above average for the water year at 106% of average. Cool weather helped offset the lack of moisture, and snowpacks are quite similar to the conditions reported a month ago. Currently snowpacks range from 70-90% of average throughout the region. Streamflow forecasts call for 73% of average for the Spokane River and 79% for the Priest River. Reservoir storage for the six major reservoirs and lakes in the Panhandle Region and Montana is 56% of capacity. Overall, water supplies should be adequate for most users.

PANHANDLE REGION
Streamflow Forecasts - May 1, 1995

Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
KOOTENAI at Leonia (1,2)	MAY-JUL	4440	5230	5590	90	5950	6740	6223
	MAY-SEP	5150	6080	6500	89	6920	7850	7304
CLARK FK at Whitehorse Rpd (1,2)	MAY-JUL	5320		7130	71		8940	10020
	MAY-SEP	5880		7900	71		9920	11200
PEND OREILLE Lake Inflow (1,2)	MAY-JUL	5770	7110	7720	70	8330	9670	11070
	MAY-SEP	6390	7880	8560	70	9240	10700	12290
PRIEST nr Priest River (1,2)	MAY-JUL	335	445	495	79	545	655	627
	MAY-SEP	380	490	540	79	590	700	680
COEUR D'ALENE at Enaville	MAY-JUL	225	295	340	72	385	455	472
	MAY-SEP	250	320	370	72	420	490	512
ST.JOE at Calder	MAY-JUL	555	640	693	79	750	830	881
	MAY-SEP	615	700	756	80	815	895	949
SPOKANE near Post Falls (2)	MAY-JUL	905	1120	1270	73	1420	1630	1749
	MAY-SEP	970	1190	1340	73	1490	1710	1846
SPOKANE at Long Lake	MAY-JUL	1080	1310	1460	74	1610	1840	1975
	MAY-SEP	1260	1490	1650	75	1810	2040	2198

PANHANDLE REGION
Reservoir Storage (1000 AF) - End of April

PANHANDLE REGION
Watershed Snowpack Analysis - May 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
HUNGRY HORSE	3451.0	2017.0	1210.0	2043.0	Kootenai ab Bonners Ferry	33	152	94
FLATHEAD LAKE	1791.0	690.7	1000.0	937.2	Moyie River	3	167	85
NOXON RAPIDS	335.0	326.8	318.8	208.7	Priest River	5	161	90
PEND OREILLE	1561.3	972.3	825.2	920.7	Pend Oreille River	94	161	87
COEUR D'ALENE	238.5	140.5	184.5	246.7	Rathdrum Creek	1	394	102
PRIEST LAKE	119.3	86.0	116.0	96.2	Hayden Lake	0	0	0
					Coeur d'Alene River	7	177	71
					St. Joe River	2	184	81
					Spokane River	10	190	76
					Palouse River	1	0	0

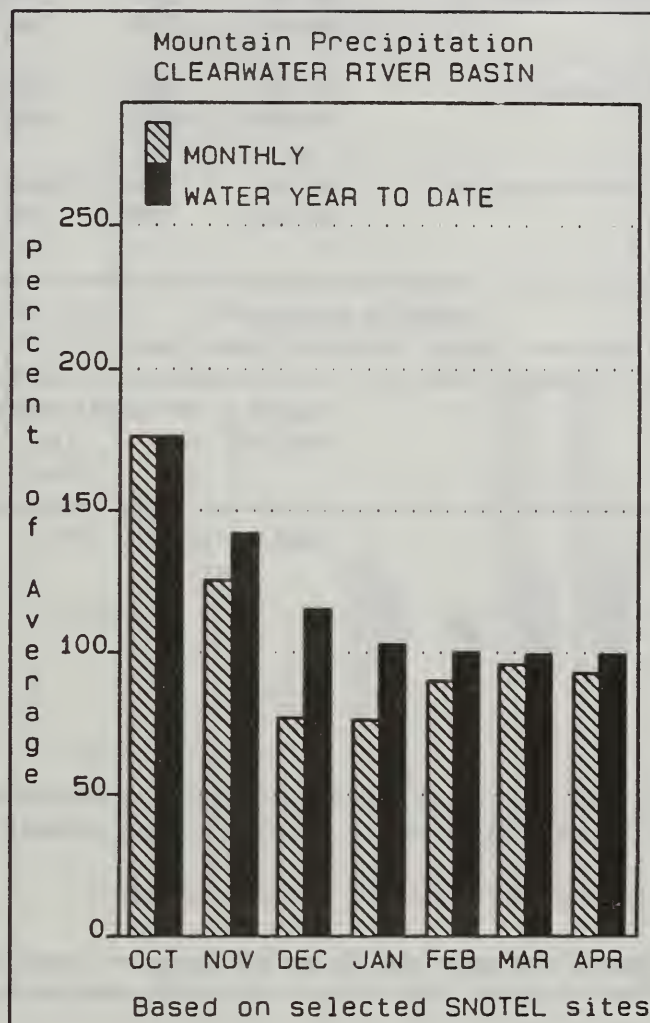
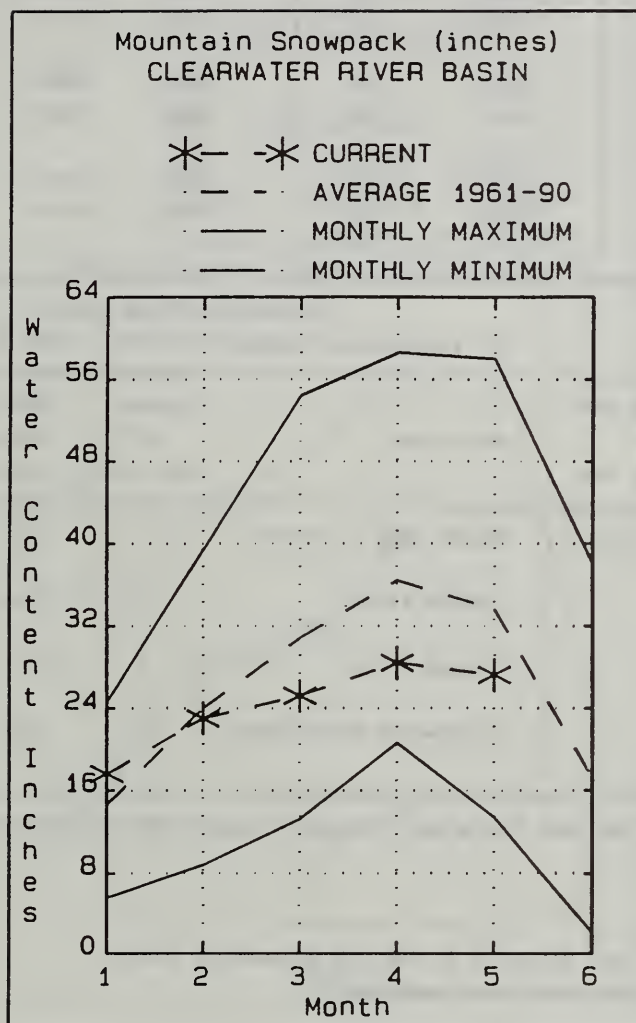
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

CLEARWATER BASIN

MAY 1, 1995



WATER SUPPLY OUTLOOK

April precipitation in the Clearwater basin ranged from below average in the northern part of the basin to above average in the southern part. Overall, precipitation in the basin was 93% of average for the month. Snowpacks in the Clearwater basin remain among the lowest in the state at 80% of average, nearly the same as last month. Dworshak Reservoir reports above average storage in anticipation of below average runoff. The current forecast for Dworshak Reservoir inflow calls for 82% of average for the May-July period; the Clearwater River at Spalding is expected to yield 83% of average. Because of the below average snowpack conditions, streamflow peaks may be lower than normal, but flows should be adequate for river running in May, June, and early July.

CLEARWATER RIVER BASIN
Streamflow Forecasts - May 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		===== Chance Of Exceeding * =====						
		90% (1000AF)	70% (1000AF)	50 (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
=====								
DWORSHAK Reservoir Inflow (2)	MAY-JUL	1310	1520	1660	82	1800	2010	2029
	MAY-SEP	1430	1640	1790	81	1940	2150	2202
CLEARWATER at Orofino (1)	MAY-JUL	2080	2730	3025	79	3320	3970	3831
	MAY-SEP	2230	2920	3230	79	3540	4230	4089
CLEARWATER at Spalding (1,2)	MAY-JUL	3650	4530	4930	83	5330	6210	5972
	MAY-SEP	3970	4910	5340	83	5770	6710	6405

CLEARWATER RIVER BASIN Reservoir Storage (1000 AF) - End of April					CLEARWATER RIVER BASIN Watershed Snowpack Analysis - May 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
DWORSHAK	3459.0	2965.2	3110.7	2276.0	North Fork Clearwater	11	172	80
					Lochsa River	4	182	83
					Selway River	5	156	79
					Clearwater Basin Total	18	170	80

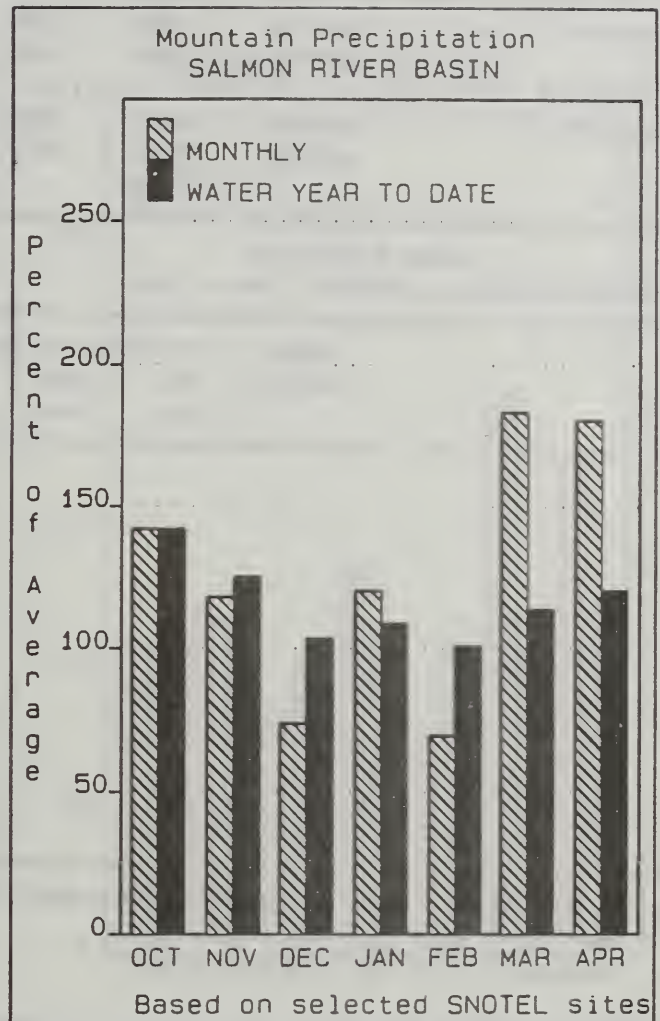
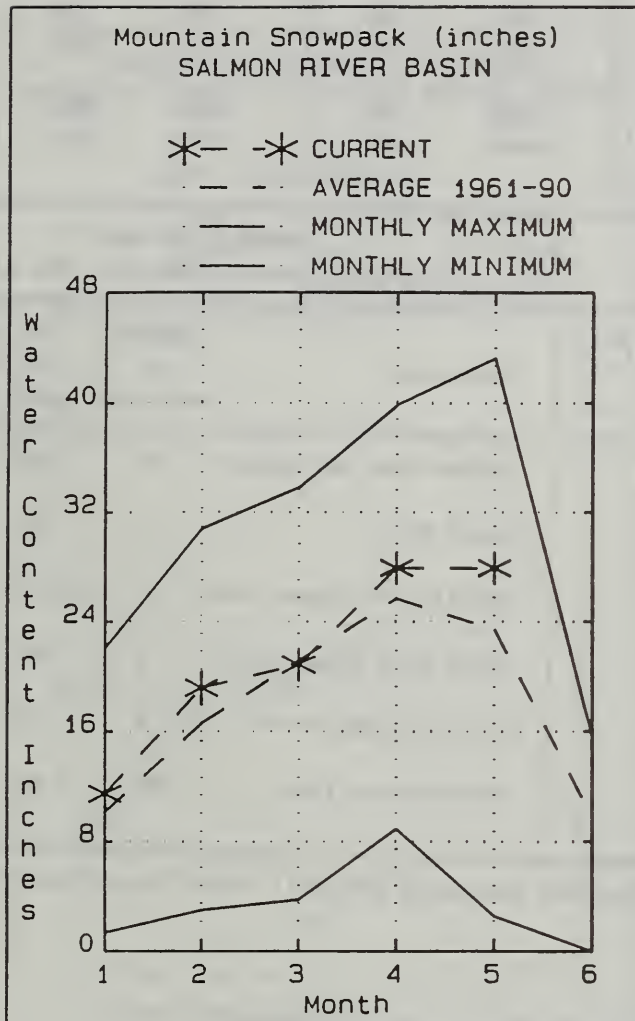
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

SALMON RIVER BASIN

MAY 1, 1995



WATER SUPPLY OUTLOOK

April precipitation was 180% of average across the Salmon basin. The majority of moisture fell during the first half of the month. Cool temperatures allowed snow to continue accumulating in the higher elevations, boosting the snowpack to 118% of average. Streamflow forecasts call for 112% of average for the Salmon River at Salmon and 108% for the Salmon River at White Bird. A delayed snowmelt could result in high water levels when warm weather arrives. For river runners, this means the potential for high peaks (possibly as high as 8 feet on the Middle Fork) and good flows later into the summer (the Middle Fork should stay above 2 feet until mid-August). Water supplies should be abundant for all users in the Salmon basin this year.

SALMON RIVER BASIN
Streamflow Forecasts - May 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		=====		Chance Of Exceeding *		=====		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
SALMON at Salmon (1)	MAY-JUL	575	775	865	112	955	1150	772
	MAY-SEP	685	920	1030	112	1140	1370	922
SALMON at White Bird (1)	MAY-JUL	4570	5350	5700	108	6050	6830	5284
	MAY-SEP	5140	6010	6400	108	6790	7660	5930

SALMON RIVER BASIN
Reservoir Storage (1000 AF) - End of April

SALMON RIVER BASIN
Watershed Snowpack Analysis - May 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Salmon River ab Salmon	8	382	130
					Lemhi River	5	221	133
					Middle Fork Salmon River	3	333	114
					South Fork Salmon River	3	293	111
					Little Salmon River	4	471	112
					Salmon Basin Total	24	297	118

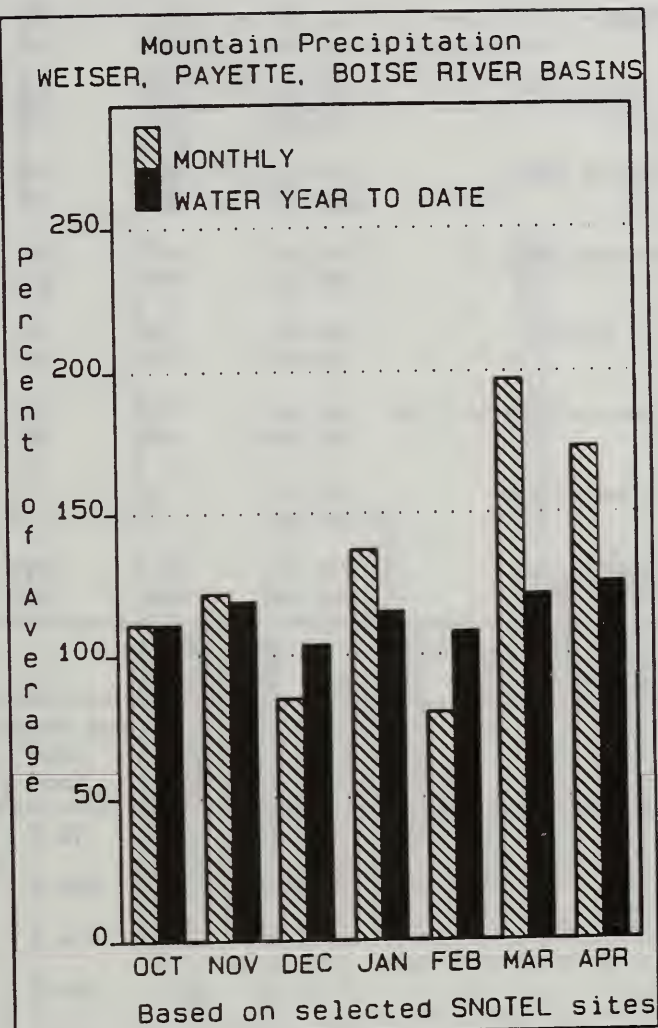
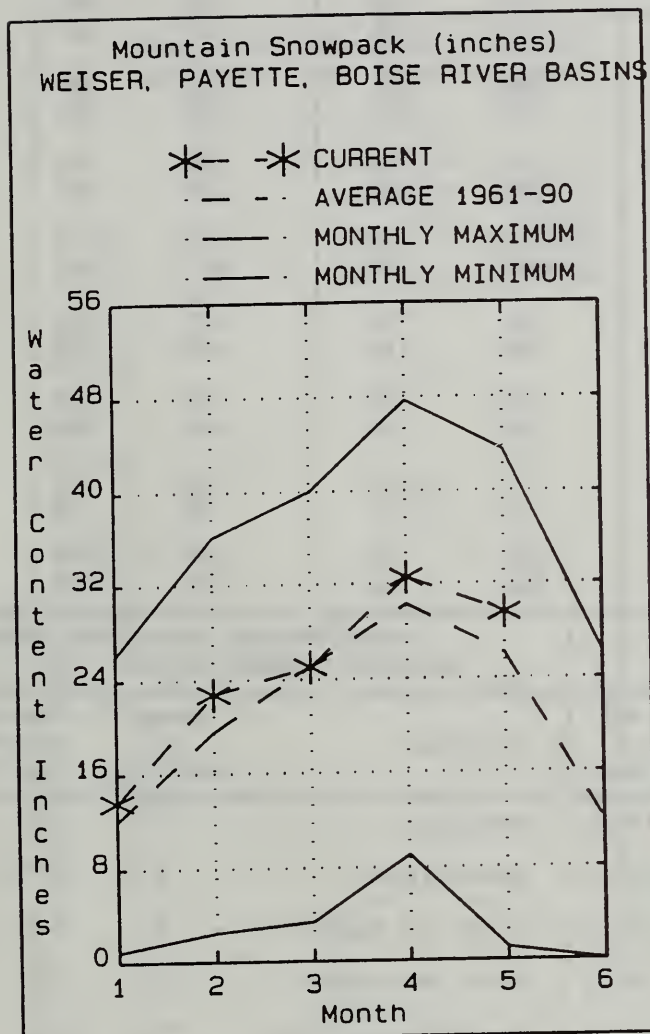
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The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

WEISER, PAYETTE, BOISE RIVER BASINS

MAY 1, 1995



WATER SUPPLY OUTLOOK

Abundant precipitation fell across the west-central mountains during April. Mountain precipitation was 173% of average with the majority falling during the first half of the month. Precipitation totals for the water year now stand at 125% of average. Cool temperatures allowed the snowpack to continue increasing in the higher elevations while mid-elevation snowpacks are just starting to melt. The snowline is around 5,000-6,000 feet. Currently, snowpacks are 109% of average in the Payette basin and 115% in the Boise basin, the best since 1986. Reservoir storage is 65% of capacity in the Boise basin and 71% in the Payette basin. Streamflow forecasts call for 120% of average for the May-July period for the Boise River near Boise and 124% for the Payette River near Horseshoe Bend. All reservoirs are projected to fill, and releases are being made from Lucky Peak and Cascade to make room for the anticipated runoff. With cool weather delaying the snowmelt, high peak flows could occur when warm weather arrives.

WEISER, PAYETTE, BOISE RIVER BASINS
Streamflow Forecasts- May 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
WEISER nr Weiser (1)	MAY-JUL	86	182	225	90	270	365	250
SF PAYETTE at Lowman	MAY-JUL	385	410	426	113	440	465	375
	MAY-SEP	440	470	486	113	505	530	431
DEADWOOD RESERVOIR Inflow (2)	MAY-JUL	129	139	146	122	153	163	120
	MAY-SEP	132	143	150	118	157	168	127
NF PAYETTE nr Cascade (2)	MAY-JUL	430	475	506	124	535	580	407
	MAY-SEP	465	515	547	124	580	625	442
NF PAYETTE nr Banks (2)	MAY-JUL	540	605	645	126	685	750	512
	MAY-SEP	580	645	692	125	740	805	554
PAYETTE nr Horseshoe Bend (2)	MAY-JUL	1430	1540	1620	124	1700	1810	1304
	MAY-SEP	1590	1710	1790	124	1870	1990	1442
BOISE near Twin Springs	MAY-JUL	530	565	590	116	615	650	509
	MAY-SEP	590	630	656	116	685	720	564
SF BOISE at Anderson Rnch Dm (1,2)	MAY-JUL	430	505	535	124	570	640	432
	MAY-SEP	470	545	581	124	615	695	470
MORES CK nr Arrowrock Dam	MAY-JUL	66	73	78	101	83	90	77
	MAY-SEP	71	78	83	101	88	95	82
BOISE nr Boise (1,2)	MAY-JUL	1110	1250	1309	120	1370	1510	1090
	MAY-SEP	1220	1370	1440	120	1510	1650	1204

WEISER, PAYETTE, BOISE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

WEISER, PAYETTE, BOISE RIVER BASINS
Watershed Snowpack Analysis - May 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MANH CREEK	11.1	11.0	10.9	10.4	Mann Creek	1	1029	138
CASCADE	703.2	527.2	524.3	411.7	Weiser River	3	1173	126
DEADWOOD	161.9	83.6	114.6	101.1	North Fork Payette	7	348	110
ANDERSON RANCH	464.2	203.4	338.0	327.2	South Fork Payette	4	285	110
ARROWROCK	286.6	243.1	139.2	214.9	Payette Basin Total	12	310	109
LUCKY PEAK	293.2	237.0	202.6	182.9	Middle & North Fork Boise	6	255	116
LAKE LOWELL (DEER FLAT)	177.1	147.2	118.9	169.8	South Fork Boise River	6	291	127
					Boise Basin Total	12	271	115
					Canyon Creek	0	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

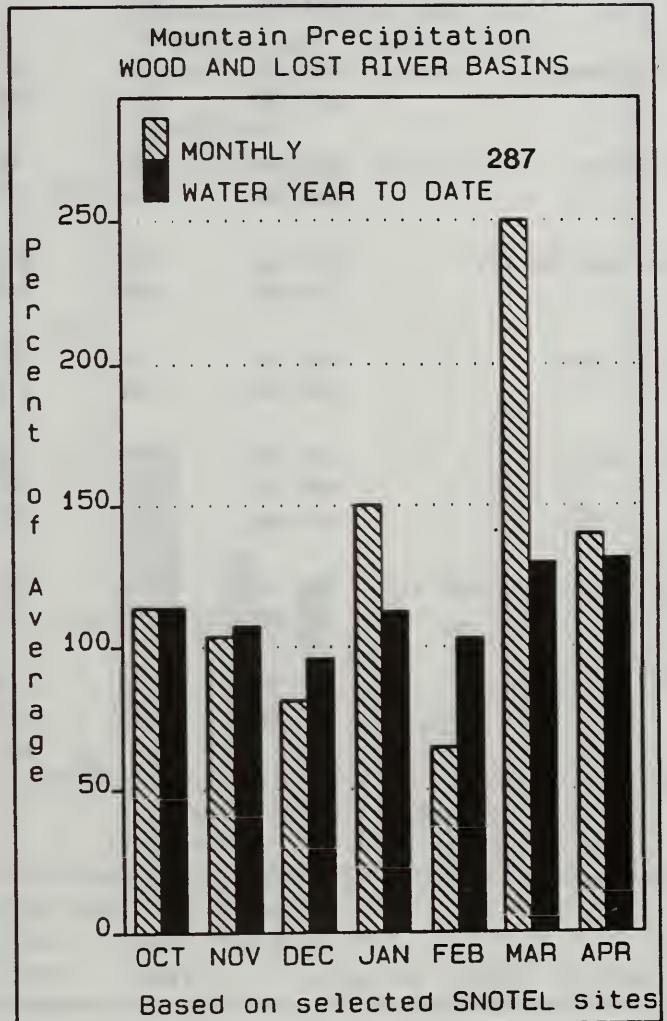
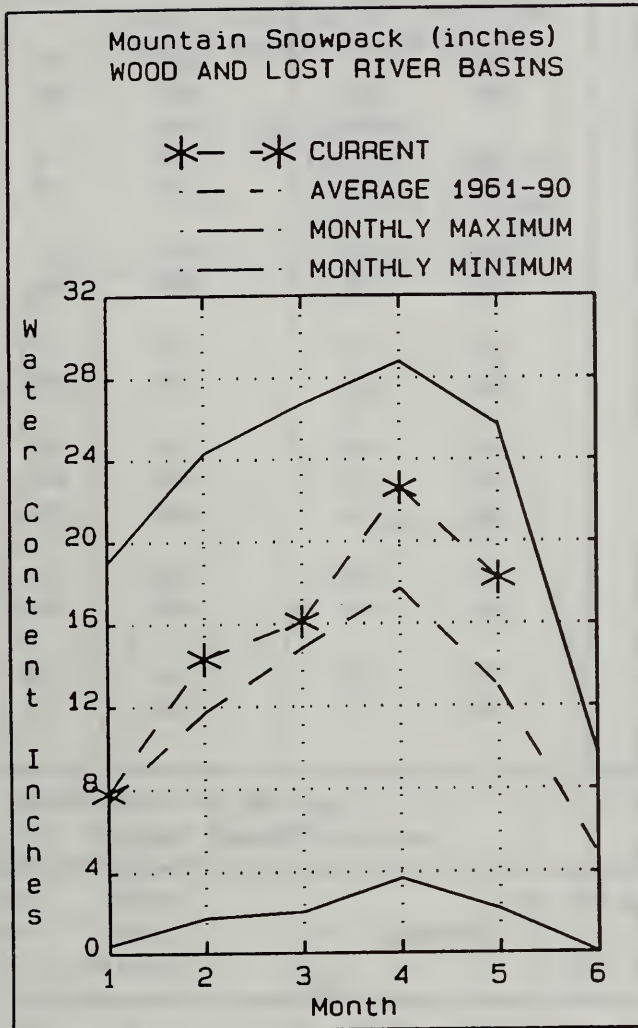
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

WOOD AND LOST RIVER BASINS

MAY 1, 1995



WATER SUPPLY OUTLOOK

In recent years dry conditions have been the norm in the Wood and Lost river basins. This year, however, is just the opposite. These central mountain basins report the highest snowpack in the state -- over 140% of average -- and the talk of the town is for the possibility of flooding. April precipitation was 140% of average and was the second month in a row with well above average precipitation. Precipitation for the water year is 131% of average. Fishpole Lake snow course, located near the divide between the Little Wood and Big Lost Rivers at 9,300 feet, is reporting 41.2 inches of water content, 183% of average. This is the highest reading taken at this site since records began in 1961. Reservoirs will fill in these basins. On April 30, Magic Reservoir reported 151,300 acre-feet of storage while Mackay had 25,600 acre-feet. Streamflow forecasts call for 130-150% of average for the May-July period for most streams in these basins, similar to conditions in 1986. Property owners near streams should be prepared for the possibility of flooding. Continued cool weather in early May will delay the snowmelt and increase the possibility of higher streamflows when warm weather arrives. Landowners and others interested in flood prone areas should keep in touch with the National Weather Service for the latest information about flood watches or flood warnings.

WOOD AND LOST RIVER BASINS
Streamflow Forecasts - May 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	===== Chance Of Exceeding * =====						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
=====								
BIG WOOD AT HAILEY (1)	MAY-SEP	290		370	145		450	255
BIG WOOD nr Bellevue	MAY-JUL	225	250	265	170	280	305	156
	MAY-SEP	240	270	285	168	300	325	170
CAMAS CK nr Blaine	MAY-JUL	20	28	33	79	39	46	42
	MAY-SEP	20	29	34	79	40	48	43
BIG WOOD blw Magic Dam (2)	MAY-JUL	265	290	310	153	330	355	202
	MAY-SEP	295	325	345	160	365	395	216
LITTLE WOOD nr Carey	MAY-JUL	96	104	110	169	116	124	65
	MAY-SEP	105	114	120	164	126	135	73
BIG LOST at Howell	MAY-JUN	133	149	160	123	172	188	130
	MAY-JUL	181	200	215	127	230	250	169
	MAY-SEP	205	230	246	126	260	285	195
BIG LOST blw Mackay Reservoir (2)	MAY-JUL	167	181	191	139	200	215	137
	MAY-SEP	205	220	230	136	240	255	169
LITTLE LOST blw Wet Creek	MAY-JUL	24	28	31	115	34	38	27
	MAY-SEP	31	36	40	113	43	48	35

WOOD AND LOST RIVER BASINS
Reservoir Storage (1000 AF) - End of April

WOOD AND LOST RIVER BASINS
Watershed Snowpack Analysis - May 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
MAGIC	191.5	151.3	99.9	167.7	Big Wood ab Magic	7	392	143
LITTLE WOOD	30.0	19.2	29.5	24.6	Camas Creek	2	0	111
MACKAY	44.4	25.6	38.5	34.2	Big Wood Basin Total	9	420	141
					Little Wood River	3	419	160
					Fish Creek	0	0	0
					Big Lost River	6	489	157
					Little Lost River	3	526	137

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

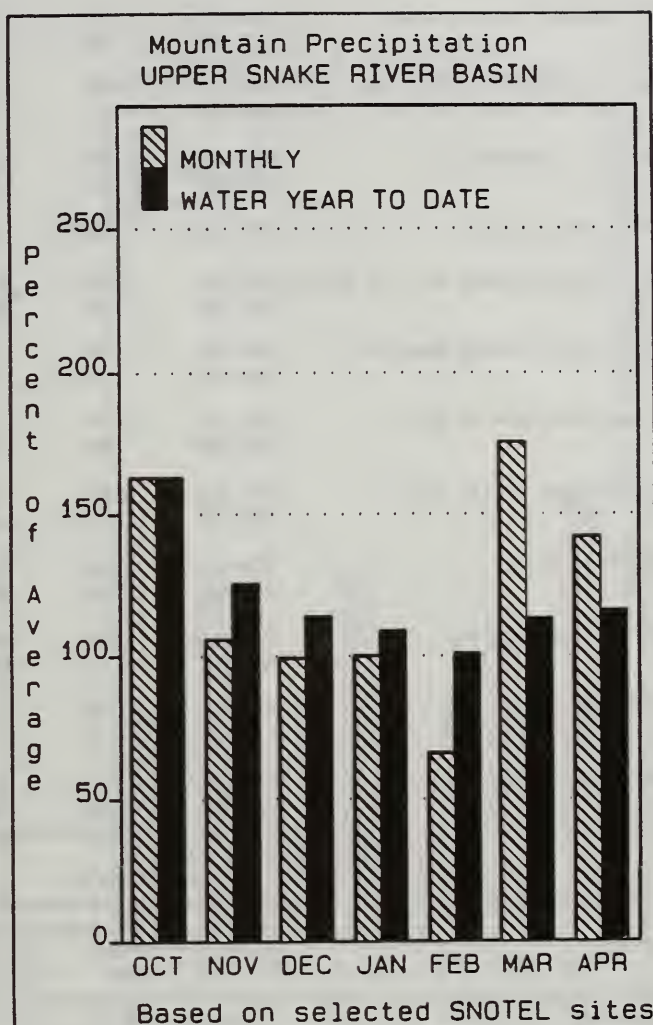
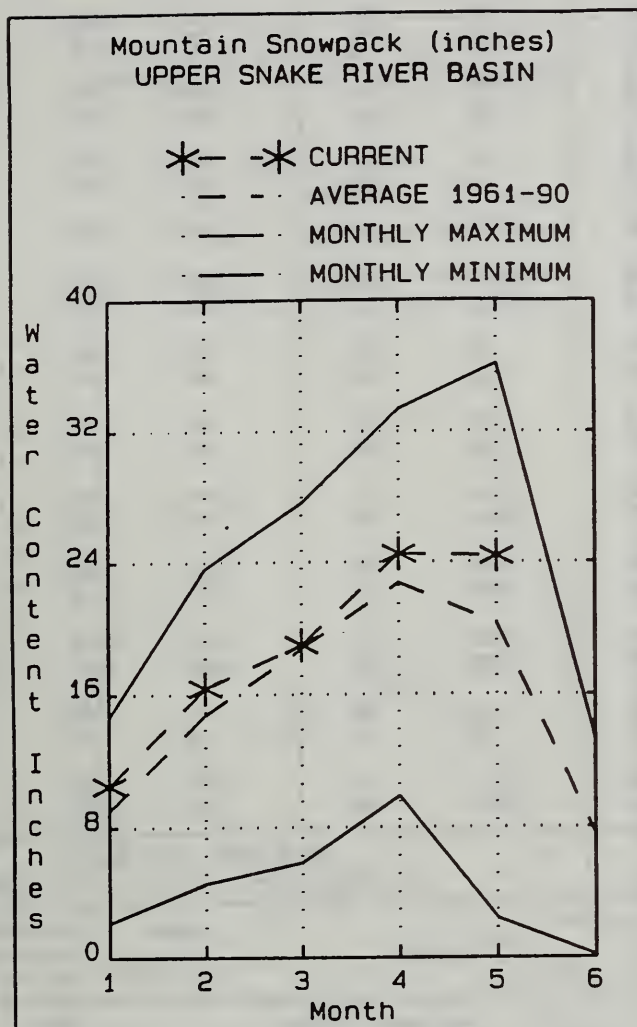
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

UPPER SNAKE RIVER BASIN

MAY 1, 1995



WATER SUPPLY OUTLOOK

April precipitation was 142% of average, and cool weather improved the snowpack percentages from last month. White Elephant SNOTEL site, located above Island Park near Sawtell Peak at 7,710 feet, is reporting 159% of average, with 43.9 inches of water stored in the snowpack. This ties the highest May 1 reading. Snowpacks are 134% of average in the Henrys Fork and 118% in the Teton basin. Snowpack percentages drop to near normal levels in the main stem of the Snake River in Wyoming and its tributaries. Combined storage for the eight major reservoirs in the basin is 73% of capacity, 96% of average. All reservoirs are projected to fill with the possible exception of Blackfoot and Ririe reservoirs. Streamflow forecasts range from 104% of average for Greys River to 150% for Henrys Fork. With well above average snowpacks in the Henrys Fork and Teton basins, the possibility of flooding exists in low-lying areas if a prolonged warm spell sets in. Landowners and others interested in flood prone areas should keep in touch with the National Weather Service for the latest information about flood watches or flood warnings.

UPPER SNAKE RIVER BASIN
Streamflow Forecasts - May 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
HENRYS FORK nr Ashton (2)	MAY-JUL	545	585	615	142	645	685	432
	MAY-SEP	660	715	755	122	795	850	618
HENRYS FORK nr Rexburg (2)	MAY-JUL	1390	1470	1520	150	1570	1650	1016
	MAY-SEP	1580	1680	1740	130	1800	1900	1339
FALLS RIVER nr Squirrel (2)	MAY-JUL	350	370	385	120	400	420	322
	MAY-SEP	420	440	458	118	475	500	390
TETON abv S Leigh Ck nr Driggs	MAY-JUL	160	176	187	144	198	215	130
	MAY-SEP	215	235	250	141	265	285	177
TETON nr St. Anthony (2)	MAY-JUL	375	415	441	134	465	505	329
	MAY-SEP	460	505	536	131	565	610	408
SNAKE nr Moran (1,2)	MAY-SEP	760	845	881	108	920	1000	814
SNAKE R abv Palisades Rsvr nr Alpine	MAY-JUL	2120	2280	2400	116	2520	2680	2070
	MAY-SEP	2480	2670	2800	115	2930	3120	2431
GREYS R abv Palisades Reservoir	MAY-JUL	260	290	308	104	330	355	296
	MAY-SEP	305	335	359	104	380	415	345
SALT abv Reservoir nr Etna	MAY-JUL	197	245	275	105	305	735	261
	MAY-SEP	270	320	355	104	390	440	341
PALISADES Rsvr Inflow (adj)	MAY-JUL	2890	3100	3244	112	3390	3590	2889
	MAY-SEP	3440	3670	3830	112	3990	4220	3426
SNAKE nr Heise (2)	MAY-JUL	3060	3290	3450	112	3610	3840	3073
	MAY-SEP	3640	3910	4090	111	4270	4540	3670
SNAKE nr Blackfoot (2)	MAY-JUL	3940	4380	4680	118	4980	5420	3981
	MAY-SEP	5120	5590	5920	118	6250	6720	5019
PORTNEUF at Topaz	MAY-JUL	42	49	54	98	59	66	55
	MAY-SEP	66	71	75	99	79	84	76
AMERICAN FALLS RESV INFLOW	MAY-JUL	2480	2930	3230	131	3530	3980	2463
	MAY-SEP	2550	3120	3510	130	3900	4470	2700

UPPER SNAKE RIVER BASIN Reservoir Storage (1000 AF) - End of April					UPPER SNAKE RIVER BASIN Watershed Snowpack Analysis - May 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	% of Average
HENRYS LAKE	90.4	80.9	89.3	81.8	Camas-Beaver Creeks	2	1738	178
ISLAND PARK	135.2	123.7	134.2	125.7	Henrys Fork River	10	271	134
GRASSY LAKE	15.2	13.6	13.9	11.7	Teton River	8	231	118
JACKSON LAKE	847.0	454.2	670.0	456.5	Snake above Jackson Lake	8	278	117
PALISADES	1400.0	807.8	1397.2	950.0	Gros Ventre River	3	205	107
RIRIE	80.5	56.0	59.2	59.4	Hoback River	6	180	95
BLACKFOOT	348.7	155.3	225.1	274.6	Greys River	4	169	104
AMERICAN FALLS	1672.6	1656.9	1639.6	1542.9	Salt River	5	202	94
					Snake above Palisades	26	220	106
					Willow Creek	4	424	99
					Blackfoot River	2	509	52
					Portneuf River	2	297	109
					Snake abv American Falls	33	231	105

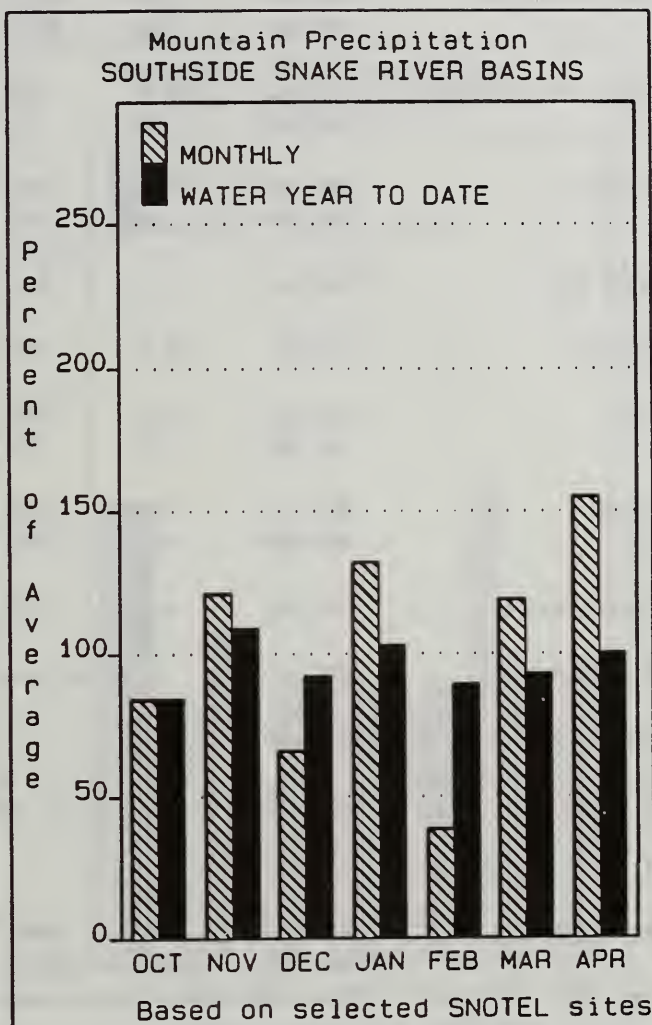
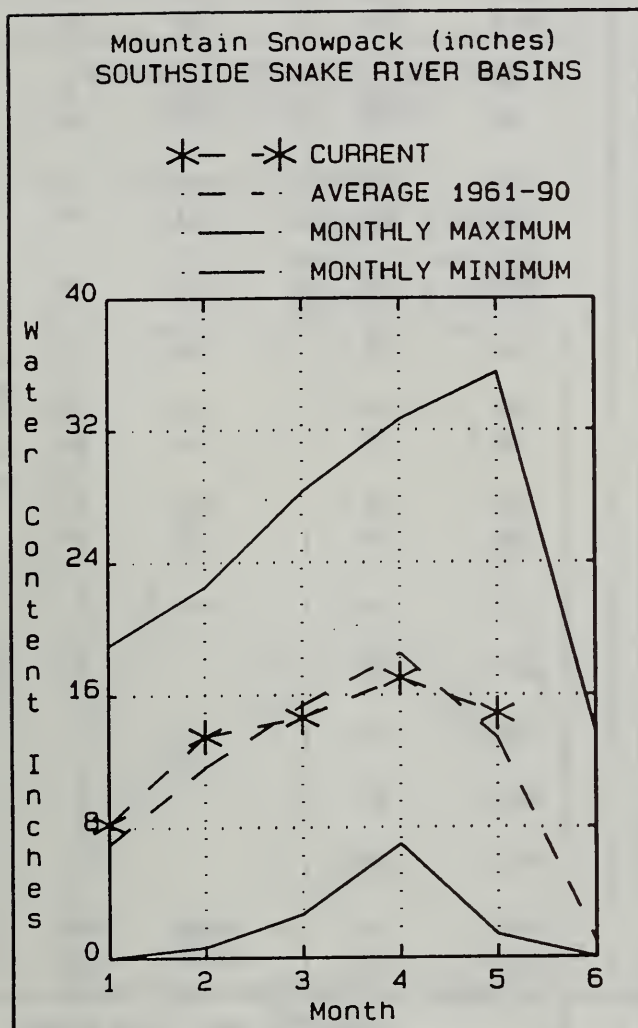
* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

SOUTHSIDE SNAKE RIVER BASINS

MAY 1, 1995



WATER SUPPLY OUTLOOK

April precipitation varied across the southern edge of Idaho, but overall precipitation was 155% of average. Mid-elevation snowpacks started melting in April while higher elevation areas maintained their April levels. Snowpacks are 91% of average in the Oakley basin, 102% in Salmon Falls basin, and 93% in the Bruneau basin. Reservoir storage remains low in Oakley and Salmon Falls Creek reservoirs while Owyhee Reservoir is 75% of capacity. The Surface Water Supply Index (SWSI) which combines reservoir storage and projected streamflow is near the median (0.0 value) indicating water supplies may be marginal. Good spring precipitation and conservation will help stretch the water supplies through the summer and perhaps provide some carryover for next year. The Jarbidge and Bruneau rivers should yield moderate rafting flows during May and early June, while the Owyhee River will continue its slow recession to low flow conditions in June.

SOUTHSIDE SNAKE RIVER BASINS
Streamflow Forecasts - May 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	===== Chance Of Exceeding * =====						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
=====								
OAKLEY RESERVOIR Inflow (2)	MAY-JUL	6.0	12.0	17.0	79	21	27	21
	MAY-SEP	8.0	15.0	19.0	80	24	30	24
SALMON FALLS CK nr San Jacinto	MAY-JUL	19.0	38	51	89	64	83	57
	MAY-SEP	23	43	56	90	70	90	62
BRUNEAU nr Hot Spring	MAY-JUL	76	104	123	76	142	170	162
	MAY-SEP	79	110	130	75	151	181	173
OWYHEE nr Gold Ck (2)	MAY-JUL	1.3	8.0	12.5	79	17.0	24	15.8
OWYHEE nr Owyhee (2)	MAY-JUL	19.0	35	45	78	56	71	58
OWYHEE near Rome	MAY-JUL	126	154	174	87	196	230	200
	MAY-SEP	143	172	192	87	214	248	220
OWYHEE RESV INFLOW	MAY-JUL	139	165	185	88	206	238	210
	MAY-SEP	164	193	214	90	236	270	238
SUCCOR CK nr Jordan Valley	MAY-JUL	4.6	7.2	9.0	176	10.8	13.4	5.1
SNAKE RIVER at King Hill (2)	MAY-JUL			1810	89			2038
SNAKE RIVER near Murphy (2)	MAY-JUL			1800	87			2077
SNAKE RIVER at Weiser (2)	MAY-JUL			3630	96			3793
SNAKE RIVER at Hells Canyon Dam	MAY-JUL			3930	92			4276
SNAKE blw Lower Granite Dam (1,2)	MAY-JUL	12600	14900	15900	94	16900	19200	16940
	MAY-SEP	14700	17300	18500	94	19700	22300	19650

SOUTHSIDE SNAKE RIVER BASINS
Reservoir Storage (1000 AF) - End of April

SOUTHSIDE SNAKE RIVER BASINS
Watershed Snowpack Analysis - May 1, 1995

Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
OAKLEY	77.4	22.8	18.8	39.2	Raft River	1	238	118
SALMON FALLS	182.6	49.4	55.6	81.4	Goose-Trapper Creeks	3	311	91
WILDHORSE RESERVOIR	71.5	33.8	37.4	47.2	Salmon Falls Creek	5	175	102
OWYHEE	715.0	536.2	449.8	619.0	Bruneau River	5	173	93
BROWNLEE	1419.3	1163.2	1379.0	959.9	Owyhee Basin Total	7	301	121

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

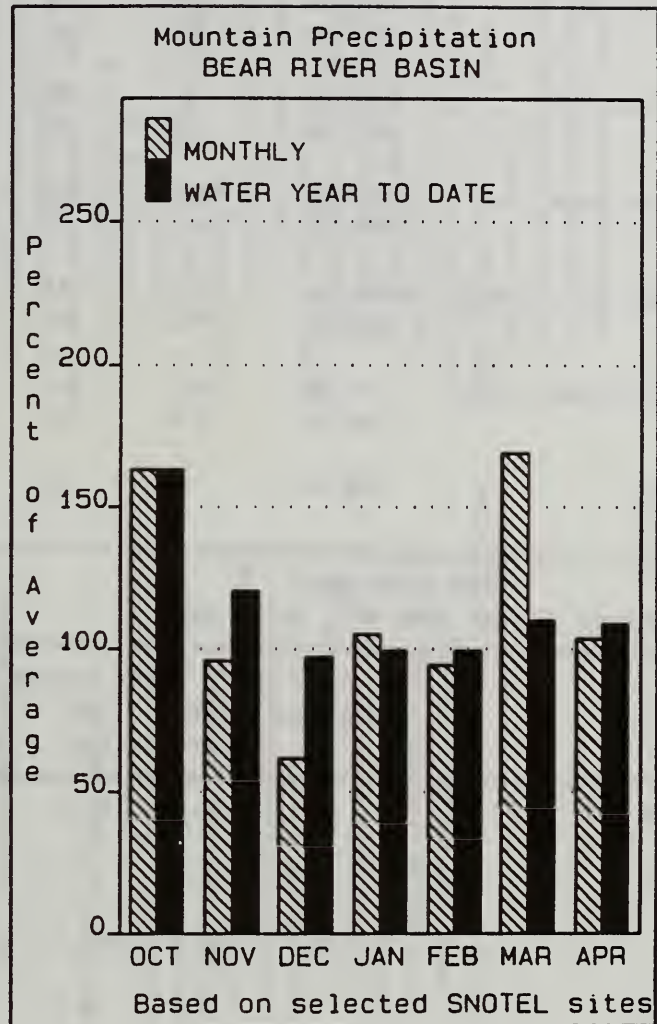
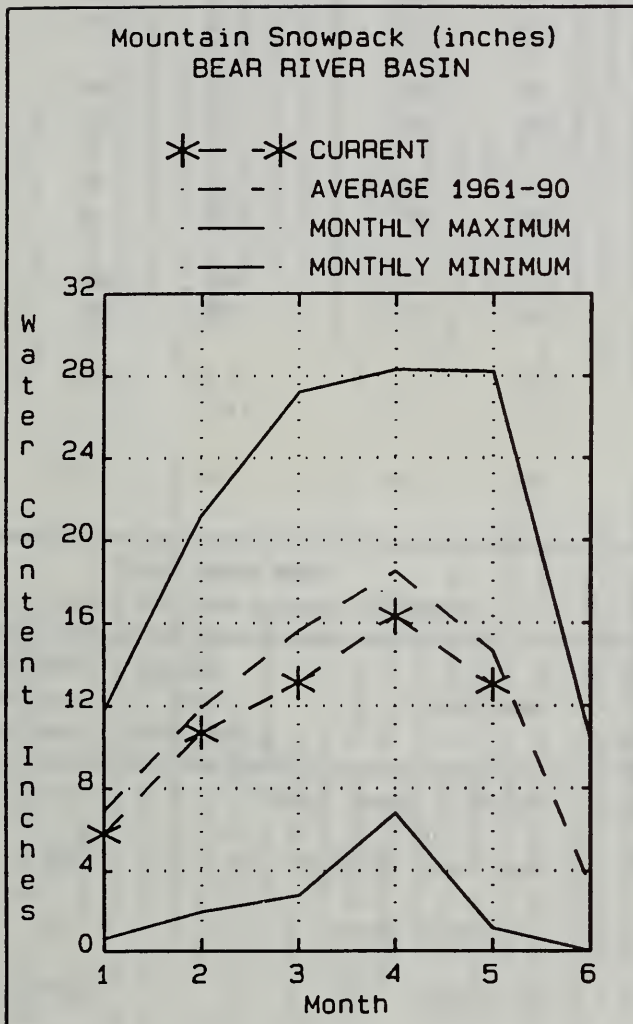
The average is computed for the 1961-1990 base period.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

BEAR RIVER BASIN

MAY 1, 1995



WATER SUPPLY OUTLOOK

April precipitation in the Bear River basin was near normal and stands at 109% of average for the water year. Snowpack percentages increased from last month in the upper Bear River area and Cub River basin and remained about the same elsewhere. Snowpacks currently range from 122% of average in the Bear River above the WY-ID state line to 83% in the Mink Creek area. Reservoir storage in Bear Lake is only 30% of capacity while Montpelier Creek Reservoir is 78% of capacity. Streamflow forecasts call for below to near normal runoff for the May-July period. Water supplies will be tight for water users who use Bear Lake storage. Water users should contact their irrigation districts for more specific information.

BEAR RIVER BASIN
Streamflow Forecasts - May 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	===== Chance Of Exceeding * =====						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF) (% AVG.)		30% (1000AF)	10% (1000AF)	
=====								
BEAR R nr Randolph, UT	MAY-JUL	50	77	95	108	113	140	88
	MAY-SEP	53	84	105	108	126	157	97
SMITHS FORK nr Border, WY	MAY-JUL	73	83	90	98	97	107	92
	MAY-SEP	89	100	108	99	116	128	109
THOMAS FK nr WY-ID State Line	MAY-JUL	14.0	18.0	22	81	27	35	27
	MAY-SEP	16.0	21	25	83	30	38	30
BEAR R blw Stewart Dam nr Montpelier	MAY-JUL	137	181	210	93	240	285	225
	MAY-SEP	160	210	245	93	280	330	264
MONTPELIER CK nr Montpelier (2)	APR-JUL	6.5	8.0	9.2	75	10.6	13.0	12.2
	APR-SEP	8.0	9.7	11.0	77	12.5	15.1	14.2
CUB R nr Preston	APR-JUL	38	43	46	98	49	54	47

BEAR RIVER BASIN Reservoir Storage (1000 AF) - End of April					BEAR RIVER BASIN Watershed Snowpack Analysis - May 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
WOODRUFF NARROWS	57.3	24.5	57.3	---	Smiths & Thomas Forks	3	201	97
WOODRUFF CREEK	4.0	4.0	4.0	---	Bear River ab WY-ID line	10	196	122
BEAR LAKE	1421.0	429.1	589.9	1059.0	Montpelier Creek	2	198	89
MONTPELIER CREEK	4.0	3.1	3.5	2.2	Mink Creek	1	231	83
					Cub River	1	151	128
					Bear River ab ID-UT line	17	199	110
					Malad River	1	0	0

* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

Streamflow Adjustment List For All Forecasts Published In Idaho Basin Outlook Report

Streamflow forecasts are projections of runoff volumes that would have occurred naturally without influences from upstream reservoirs or diversions. These values are referred to as natural or adjusted flows. To make these adjustments, changes in reservoir storage, diversions, and interbasin transfers are added or subtracted from the observed (actual) streamflow volumes. The following list documents the adjustments made to each forecast point in this report.

Panhandle River Basins

KOOTENAI R AT LEONIA, ID
+ LAKE KOOCANUSA (STORAGE CHANGE)
CLARK FORK R AT WHITEHORSE RAPIDS, ID
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS RESV (STORAGE CHANGE)
PEND OREILLE LAKE INFLOW, ID
+ PEND OREILLE R AT NEWPORT, WA
+ HUNGRY HORSE (STORAGE CHANGE)
+ FLATHEAD LAKE (STORAGE CHANGE)
+ NOXON RAPIDS (STORAGE CHANGE)
+ PEND OREILLE LAKE (STORAGE CHANGE)
PRIEST R NR PRIEST R, ID
+ PRIEST LAKE (STORAGE CHANGE)
COEUR D'ALENE R AT ENAVILLE, ID - No Corrections
ST. JOE R AT CALDER, ID - No Corrections
SPOKANE R NR POST FALLS, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)
SPOKANE R AT LONG LAKE, ID
+ COEUR D'ALENE LAKE (STORAGE CHANGE)

Clearwater River Basin

CLEARWATER R AT OROFINO, ID - No Corrections
DWORSHAK RESERVOIR INFLOW, ID
+ CLEARWATER R NR PECK, ID
+ DWORSHAK RESV (STORAGE CHANGE)
+ CLEARWATER R AT OROFINO, ID
CLEARWATER R AT SPALDING, ID
+ DWORSHAK RESV (STORAGE CHANGE)

Salmon River Basin

SALMON R AT SALMON, ID - No Corrections
SALMON R AT WHITE BIRD, ID - No Corrections

Weiser, Payette, Boise River Basins

WEISER R NR WEISER, ID - No Corrections
SF PAYETTE R AT LOWMAN, ID - No Corrections
DEADWOOD RESERVOIR INFLOW, ID
+ DEADWOOD R BLW DEADWOOD RESV NR LOWMAN
+ DEADWOOD RESV (STORAGE CHANGE)
NF PAYETTE R AT CASCADE, ID
+ CASCADE RESV (STORAGE CHANGE)
NF PAYETTE R NR BANKS, ID
+ CASCADE RESV (STORAGE CHANGE)
PAYETTE R NR HORSESHOE BEND, ID
+ DEADWOOD RESV (STORAGE CHANGE)
+ CASCADE RESV (STORAGE CHANGE)
BOISE R NR TWIN SPRINGS, ID - No Corrections
SF BOISE R AT ANDERSON RANCH DAM, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
MORES CK NR ARROWROCK DAM, ID - No Corrections
BOISE R NR BOISE, ID
+ ANDERSON RANCH RESV (STORAGE CHANGE)
+ ARROWROCK RESV (STORAGE CHANGE)
+ LUCKY PEAK RESV (STORAGE CHANGE)

Wood and Lost River Basins

BIG WOOD R AT HAILEY, ID - No Corrections
BIG WOOD R NR BELLEVUE, ID - No Corrections
CAMAS CK NR BLAINE, ID - No Corrections
BIG WOOD R BLW MAGIC DAM NR RICHFIELD, ID
+ MAGIC RESV (STORAGE CHANGE)
LITTLE WOOD R NR CAREY, ID
+ LITTLE WOOD RESV (STORAGE CHANGE)
BIG LOST R AT HOWELL RANCH NR CHILLY, ID - No Corrections
Corrections
BIG LOST R BLW MACKAY RESV NR MACKAY, ID
+ MACKAY RESV (STORAGE CHANGE)
LITTLE LOST R BLW WET CK NR HOWE, ID - No Corrections

Upper Snake River Basin

HENRYS FORK NR ASHTON, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
HENRYS FORK NR REXBURG, ID
+ HENRYS LAKE (STORAGE CHANGE)
+ ISLAND PARK RESV (STORAGE CHANGE)
+ DIV FM HENRYS FK BTW ASHTON & ST. ANTHONY, ID
+ DIV FM HENRYS FK BTW ST. ANTHONY & REXBURG, ID
+ GRASSY LAKE (STORAGE CHANGE)
FALLS R NR SQUIRREL, ID
+ GRASSY LAKE (STORAGE CHANGE)
TETON R ABV SO LEIGH CK NR DRIGGS, ID - No Corrections
TETON R NR ST. ANTHONY, ID
+ CROSS CUT CANAL
+ SUM OF DIVERSIONS ABV GAGE
SNAKE R NR MORAN, WY
+ JACKSON LAKE (STORAGE CHANGE)
PACIFIC CK AT MORAN, WY - No Corrections
SNAKE R ABV PALISADES RESV NR ALPINE, WY
+ JACKSON LAKE (STORAGE CHANGE)
GREYS R ABV PALISADES RESV, WY - No Corrections
SALT R ABV RESV NR ETNA, WY - No Corrections
PALISADES RESERVOIR INFLOW, ID
+ SNAKE R NR IRWIN, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR HEISE, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
SNAKE R NR BLACKFOOT, ID
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)
+ DIV FM SNAKE R BTW HEISE AND SHELLY GAGES
+ DIV FM SNAKE R BTW SHELLY AND BLACKFT, ID
PORTNEUF R AT TOPAZ, ID - No Corrections
AMERICAN FALLS RESERVOIR INFLOW, ID
+ SNAKE R AT NEELEY, ID
+ AMERICAN FALLS (STORAGE CHANGE)
+ PALISADES RESV (STORAGE CHANGE)
+ JACKSON LAKE (STORAGE CHANGE)

Southside Snake River Basins

RESERVOIR CAPACITY DEFINITIONS - Different agencies use various definitions when reporting reservoir capacity and contents. Reservoir storage terms include dead, inactive, active, and surcharge storage. The table below lists these volumes for each reservoir in this report, and defines the storage volumes that NRCS uses when reporting capacity and current reservoir storage. In most cases, NRCS reports usable storage, which includes active and inactive storage.

BASIN/	DEAD STORAGE	INACTIVE STORAGE	ACTIVE STORAGE	SURCHARGE STORAGE	NRCS CAPACITY	NRCS FIGURES INCLUDE
<u>RESERVOIR</u>						
<u>PANHANDLE REGION</u>						
HUNGRY HORSE	39.73	--	3451.00	--	3451.0	ACTIVE
FLATHEAD LAKE	Unknown	--	1791.00	--	1971.0	ACTIVE
NOXON RAPIDS	Unknown	--	335.00	--	335.0	ACTIVE
PEND OREILLE	406.20	112.40	1042.70	--	1561.3	DEAD + INACTIVE + ACTIVE
COEUR D'ALENE	--	13.50	225.00	--	238.5	INACTIVE + ACTIVE
PRIEST LAKE	20.00	28.00	71.30	--	119.3	DEAD + INACTIVE + ACTIVE
<u>CLEARWATER BASIN</u>						
DWORSHAK	--	1452.00	2007.00	--	3459.0	INACTIVE + ACTIVE
<u>WEISER/BOISE/PAYETTE BASINS</u>						
MANN CREEK	1.61	0.24	11.10	--	11.1	ACTIVE
CASCADE	--	50.00	653.20	--	703.2	INACTIVE + ACTIVE
DEADWOOD	1.50	--	161.90	--	161.9	ACTIVE
ANDERSON RANCH	29.00	41.00	423.18	--	464.2	INACTIVE + ACTIVE
ARROWROCK	--	--	286.60	--	286.6	ACTIVE
LUCKY PEAK	--	28.80	264.40	13.80	293.2	INACTIVE + ACTIVE
LAKE LOWELL	--	8.00	169.10	--	169.1	ACTIVE
<u>WOOD/LOST BASINS</u>						
MAGIC	--	--	191.50	--	191.5	ACTIVE
LITTLE WOOD	--	--	30.00	--	30.0	ACTIVE
MACKAY	0.13	--	44.37	--	44.4	ACTIVE
<u>UPPER SNAKE BASIN</u>						
HENRYS LAKE	--	--	90.40	--	90.4	ACTIVE
ISLAND PARK	0.40	--	127.30	7.90	135.2	ACTIVE + SURCHARGE
GRASSY LAKE	--	--	15.18	--	15.2	ACTIVE
JACKSON LAKE	--	--	847.00	--	847.0	ACTIVE
PALISADES	44.10	155.50	1200.00	--	1400.0	DEAD + INACTIVE + ACTIVE
RIRIE	4.00	6.00	80.54	10.00	80.5	ACTIVE
BLACKFOOT	--	--	348.73	--	348.7	ACTIVE
AMERICAN FALLS	--	--	1672.60	--	1672.6	ACTIVE
<u>SOUTHSIDE SNAKE BASINS</u>						
OAKLEY	--	--	77.40	--	77.4	ACTIVE
SALMON FALLS	48.00	--	182.65	--	182.6	ACTIVE
WILDHORSE	--	--	71.50	--	71.5	ACTIVE
OWYHEE	406.83	--	715.00	--	715.0	ACTIVE
BROWNLEE	0.45	444.00	975.30	--	1419.3	INACTIVE + ACTIVE
<u>BEAR RIVER BASIN</u>						
WOODRUFF NARROWS	--	1.50	57.30	--	57.3	ACTIVE
WOODRUFF CREEK	--	4.00	4.00	--	4.0	ACTIVE
BEAR LAKE	--	--	1421.00	--	1421.0	ACTIVE
MONTPELIER CREEK	0.21	--	3.84	--	4.0	DEAD + ACTIVE
<u>Bear River Basin</u>						
BEAR R NR RANDOLPH, UT						
+ SULPHUR CK RESV (STORAGE CHANGE)						
+ CHAPMAN CANAL DIVERSION						
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)						
SMITHS FORK NR BORDER, WY - No Corrections						
THOMAS FORK NR WY-ID STATELINE - No Corrections						
BEAR R BLW STEWART DAM, ID						
+ SULPHUR CK RESV (STORAGE CHANGE)						
+ CHAPMAN CANAL DIVERSION						
+ WOODRUFF NARROWS RESV (STORAGE CHANGE)						
+ TOTAL OF 12 CANALS						
+ WESTFORK CANAL						
+ DINGLE INLET CANAL						
+ RAINBOW INLET CANAL						
MONTPELIER CK NR MONTPELIER, ID						
+ MONTPELIER CK RESV (STORAGE CHANGE)						
CUB R NR PRESTON, ID - No Corrections						

Interpreting Streamflow Forecasts

Introduction

Each month, five forecasts are issued for each forecast point and each forecast period. Unless otherwise specified, all streamflow forecasts are for streamflow volumes that would occur naturally without any upstream influences. Water users need to know what the different forecasts represent if they are to use the information correctly when making operational decisions. The following is an explanation of each of the forecasts.

Most Probable (50 Percent Chance of Exceeding) Forecast. This forecast is the best estimate of streamflow volume that can be produced given current conditions and based on the outcome of similar past situations. There is a 50 percent chance that the streamflow volume will exceed this forecast value. There is a 50 percent chance that the streamflow volume will be less than this forecast value.

The most probable forecast will rarely be exactly right, due to errors resulting from future weather conditions and the forecast equation itself. This does not mean that users should not use the most probable forecast; it means that they need to evaluate existing circumstances and determine the amount of risk they are willing to take by accepting this forecast value.

To Decrease the Chance of Having Too Little Water

If users want to make sure there is enough water available for their operations, they might determine that a 50 percent chance of the streamflow volume being lower than the most probable forecast is too much risk to take. To reduce the risk of not having enough water available during the forecast period, users can base their operational decisions on one of the forecasts with a greater chance of being exceeded (or possibly some point in-between). These include:

- 70 Percent Chance of Exceeding Forecast.** There is a 70 percent chance that the streamflow volume will exceed this forecast value. There is a 30 percent chance the streamflow volume will be less than this forecast value.
- 90 Percent Chance of Exceeding Forecast.** There is a 90 percent chance that the streamflow volume will exceed this forecast value. There is a 10 percent chance the streamflow volume will be less than this forecast value.

To Decrease the Chance of Having Too Much Water

If users want to make sure they don't have too much water, they might determine that a 50 percent chance of the streamflow being higher than the most probable forecast is too much of a risk to take. To reduce the risk of having too much water available during the forecast period, users can base their operational decisions on one of the forecasts with a smaller chance of being exceeded. These include:

- 30 Percent Chance of Exceeding Forecast.** There is a 30 percent chance that the streamflow volume will exceed this forecast value. There is a 70 percent chance the streamflow volume will be less than this forecast value.
- 10 Percent Chance of Exceeding Forecast.** There is a 10 percent chance that the streamflow volume will exceed this forecast value. There is a 90 percent chance the streamflow volume will be less than this forecast value.

Using the forecasts - an example

Using the Most Probable Forecast. Using the example forecasts shown below, users can reasonably expect 36,000 acre-feet to flow past the gaging station on the Mary's River near Deeth between March 1 and July 31.

Using the Higher Exceedance Forecasts. If users anticipate a somewhat drier trend in the future (monthly and seasonal weather outlooks are available from the National Weather Service every two weeks), or if they are operating at a level where an unexpected shortage of water could cause problems, they might want to plan on receiving only 20,000 acre-feet (from the 70 percent chance of exceeding forecast). In seven out of ten years with similar conditions, streamflow volumes will exceed the 20,000 acre-foot forecast.

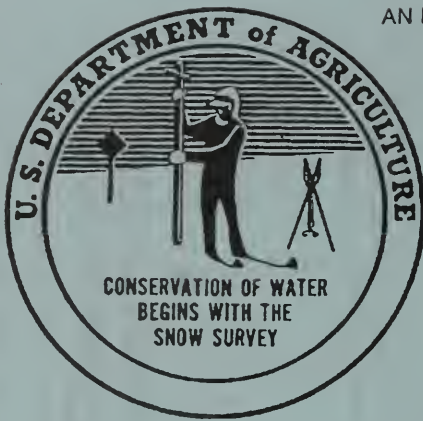
If users anticipate extremely dry conditions for the remainder of the season, or if they determine the risk of using the 70 percent chance of exceeding forecast is too great, then they might plan on receiving only 5,000 acre-feet (from the 90 percent chance of exceeding forecast). Nine out of ten years with similar conditions, streamflow volumes will exceed the 5,000 acre-foot forecast.

Using the Lower Exceedance Forecasts. If users expect wetter future conditions, or if the chance that five out of every ten years with similar conditions would produce streamflow volumes greater than 36,000 acre-feet was more than they would like to risk, they might plan on receiving 52,000 acre-feet (from the 30 percent chance of exceeding forecast) to minimize potential flooding problems. Three out of ten years with similar conditions, streamflows will exceed the 52,000 acre-foot forecast.

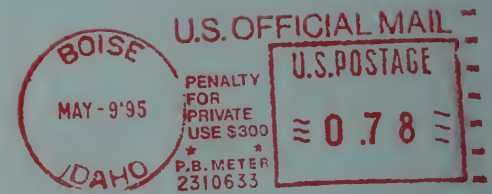
In years when users expect extremely wet conditions for the remainder of the season and the threat of severe flooding and downstream damage exists, they might choose to use the 76,000 acre-foot (10 percent chance of exceeding) forecast for their water management operations. Streamflow volumes will exceed this level only one year out of ten.

UPPER HUMBOLDT RIVER BASIN													
FORECAST POINT	FORECAST PERIOD	STREAMFLOW FORECASTS											
		DRIER-----FUTURE CONDITIONS-----WETTER----->											
		Chance of Exceeding											
		90 % (1000AF)	70 % (1000AF)	50 % (Most Probable) (1000AF)	30 % (1000AF)	10 % (1000AF)						25 YR (1000AF)	
MARY'S RIVER nr Deeth	MAR-JUL	5.0	20.0	36	77	52	76	47					47
	APR-JUL	8.0	17.0	31	74	45	67	42					42
LAMOILLE CREEK nr Lamolle	MAR-JUL	6.0	16.0	24	79	32	43	31					31
	APR-JUL	4.0	15.0	22	75	30	41	30					30
NF HUMBOLDT RIVER at Devils Gate	MAR-JUL	6.0	12.0	43	73	74	121	59					59

For more information concerning streamflow forecasting ask your local NRCS field office for a copy of "A Field Office Guide for Interpreting Streamflow Forecasts".



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In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, West National Technical Center, 101 SW Main Street, Suite 1700, Portland, OR 97204-3225.